APPENDIX 8

TO

OPERATING LICENSES DPR-19 & DPR-25 ENVIRONMENTAL TECHNICAL SPECIFICATIONS

FOR

DRESDEN STATION UNITS 2 & 3 COMMONWEALTH EDISON COMPANY NRC DOCKETS 50-237 & 50-249

POOR ORIGINAL

8010100487

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1.0 DEFINITIONS

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Closed Cycle Operation Units 2 and 3	-	The circulating water flow, after passing through the condensers, cooling lake and canals is recirculated back to the condenser intake with the exception of the blowdown which is discharged to the river.
Blowdown	-	Water which is discharged to the river from the lake during closed cycle operation.
Lake Make-up Water	-	Water which is diverted from the DesPlain and Kankakee Rivers replace losses due to evaporation seepage and lake blowdown.
N/A	-	Not applicable to technical specification.
Open Cycle Operation Units 2 & 3	-	The circulating water flow, after passing through the condenser, cooling lake and spray canals is discharged directly into the Illinois River and at least 50% of spray modules are functional.
Degraded Open Cycle	-	Open cycle as defined above but the Lake or greater than 50% of the spray modules are out of rervice.
Plant	-	Dresden Units 2 and/or 3.

- Dresden Units 1, 2 and 3 and all associated property and structures.

Emergency Need for Power

Site

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An emergency need for power exists when any further reduction in Dresden Units 2 and 3 power level would result in curtailment of service.

2.0 LIMITING CONDITIONS FOR OPERATION

2.1 THERMAL

Objective: The purpose of this specification is to limit thermal stress to the Illinois River (Dresden Pool).

- 2 -

Specification:

1. The temperature rise from the station will not exceed $5^{\circ}F$ outside of a mixing zone of 26 acres in the river.

Monitoring Requirement:

Determine and record at least twice per week the position of the gate controlling the circulating water discharge flow to the river.

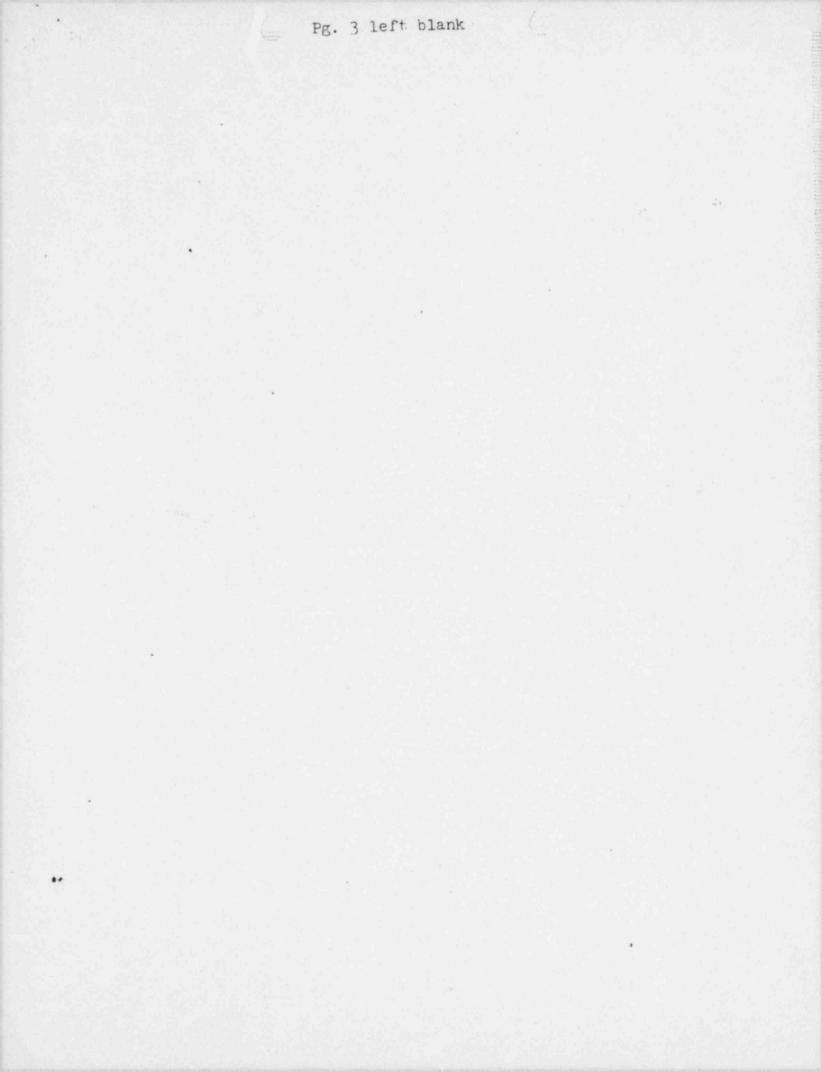
To verify conformance with State of Illinois thermal standards, the Unit 1 and Unit 2/3 circulating water discharge to the river temperatures shall be determined and recorded at least once per week. The embient river temperature (Tamb) and complime with the temperature limitations will be determined at least once per week.

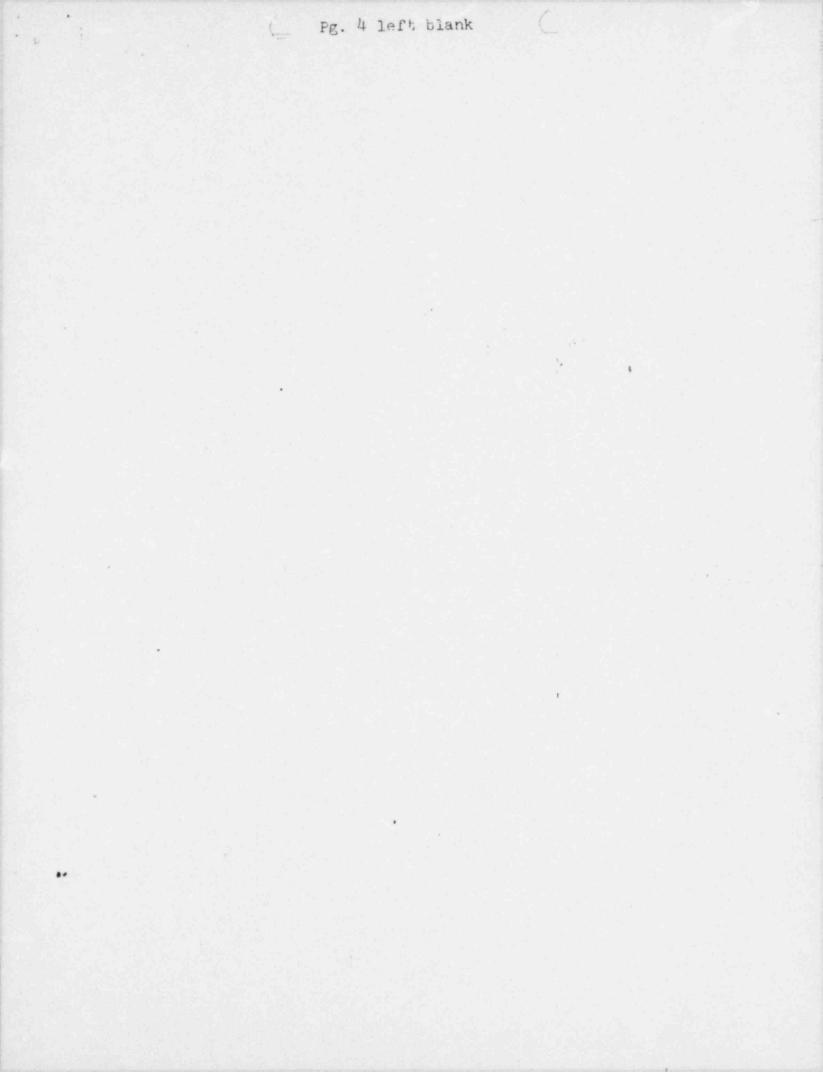
Bases:

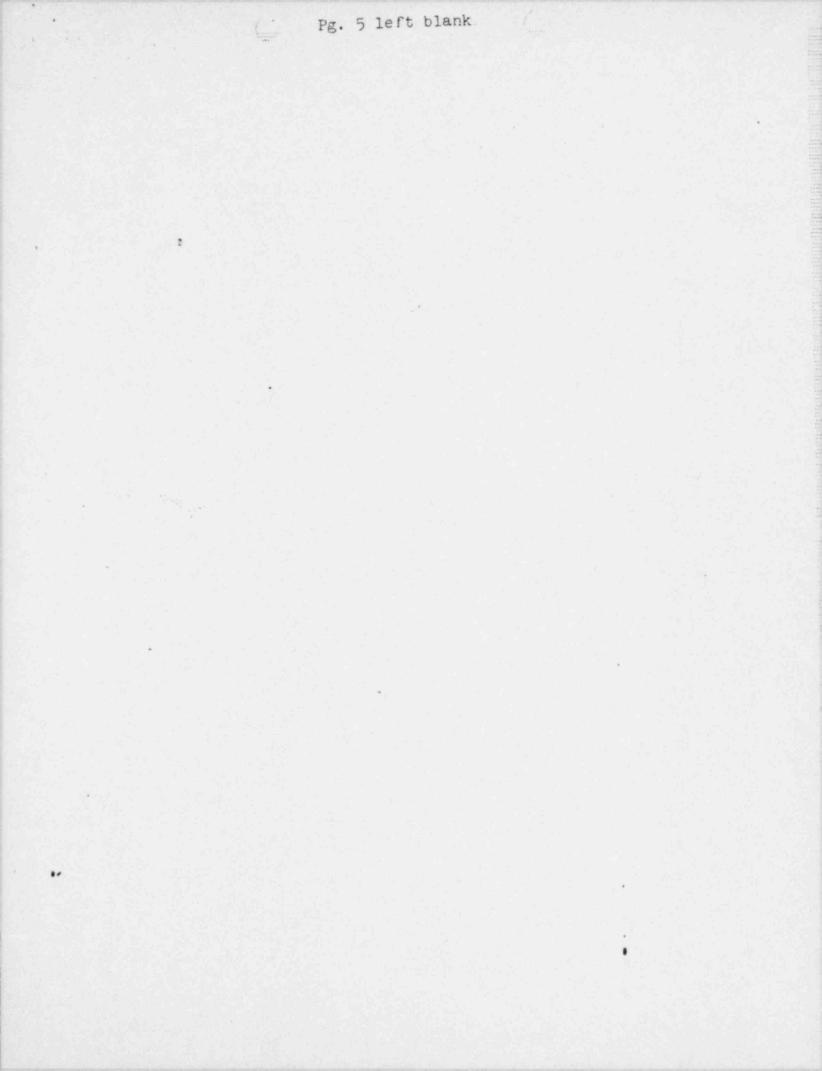
The State of Illinois stream temperature limits as specified in the State of Illinois Pollution Control Board, Water Pollution Regulation of Illinois, adopted through July 1973, which limits thermal stresses to the Illinois River.

 Temperatures up to 3°F above the limiting temperatures are permitted provided that the aggregate duration of the excursions does not exceed 1% of the hours in a 12-month period ending with any month.









2.2 Hydraulic

2.2.1 Intake Velocity

See 5.8.1.a.

2.2.2 Discharge Velocity

Not Applicable (N/A)

2.2.3 Flow Rate Restrictions

N/A

2.2.4 Reservoir Drawdown

N/A

2.3 Chemical

Objective (General)

To protect the local biota from possible deleterious effects of chemical discharges. To assure that the use of the receiving medium by human population is protected.

Specification (General)

All plant chemical discharges to the river shall be diluted by the plant circulating water blowdown during release to assure that the stated objective can be achieved.

2.3.1 Biocides (Units 2 & 3)

Objective: to limit the amount of routine intermittent hypochlorite added to Units 2 and 3 condensers for the protection of biota in the Illinois River (Dresden Pocl).

Specification: during any 24 hour period no more than a total of 12,000 gallons of 15% (trade percent) sodium hypochlorite solution or equivalent shall be used.

Monitoring Requirements: In Situ surveillance of the chlorine residual will be conducted weekly. If any time during this surveillance program, a free chlorine residual in excess of 0.1 ppm is found at discharge canal cf Units 2-3 to the river, corrective action will be taken. Records shall be kept of the daily amount of sodium hypochlorite solution used. Bases: The maximum 12,000 gals.of sodium hypochlorite solution introduced to the cooling water daily to control biotic growths on the condenser tubes of Units 2 and 3 is expected to have no net effect on the Water Quality of the Illinois River. Because of the long retention time in the cooling lake and canal system, the free chlorine which leaves the condenser will combine into the various by products of chlorine. Complete removal of the free residual and combined chlorine is expected to occur prior to discharge to the Illinois River.

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2.3.1a Biocides (Unit 1)

Objective: To limit the amount of routine intermittent hypochlorite added to Unit 1 condensers for the protection of biota in the Illinois River (Dresden Pcol).

Specification: During any chlorination period of Unit 1 condensers, the free residual chlorine shall not exceed 0.2 mg/l Daily average and 0.5 mg/l Daily maximum at the outfall to the Illinois River. The total chlorination time period during any 24 hour period shall not exceed 2 hrs/day

Monitoring: In-situ surveillance will be conducted at the discharge canal of Unit 1 on a weekly basis during periods of Unit 1 condenser chlorination. If at any time the free residual chlorine exceeds 0.2 mg/l (daily) average) or 0.5 mg/l (daily maximum) of all samples in one day, corrective action will be taken. The results of chlorination surveillance and any associated corrective action shall be reported in the semi-annual report.

Bases: The chlorination limits indicated in the specification required by the U.S. Environmental Protection Agency NPDES proposed permit Application No. IL 070 0X3 2,720349.

2.3.2 Corrosion Inhibitors

See specifications 2.3.5 for control of corrosion inhibitors.

2.3.3 Suspended and Dissolved Solids

See spec fication 2.3.5 for control of suspended and dissolved solids. POOR ORIGINAL

2.3.4 pH

See specification 2.3.5 for control of pH.

2.3.5 Other Chemicals

Specification: all liquid effluents from Units 1, 2 and 3 shall be maintained within the chemical concentrations permitted by the State of Illinois Water Pollution Regulations. Routine operating practice will be to limit chemicals used to those listed on table 2.3-1 and to the quantities listed.

Monitoring Requirement: appropriate monthly records will be maintained for all chemicals listed in table 2.3-1 used for Units 2 and 3. These records will be evaluated semi-annually and reported in the plant semiannual report. In addition, the NRC will be notified in writing if the monthly usage listed in table 2.3-1 is exceeded by 300% or greater.

Chemical	Use of Chemical	이에 가지 않는 것이 같아. 영화 가지 않는 것이 같아.	Short-term Concentration in Effluent, mg/1 (closed cycle mode)	Monthly Usage
Na2503	Treatment of boiler water	Sulfite converted to sulfate, released to discharge.	0.8	168* 1
Na 3PO4	Treatment of boiler water	Released to discharge	0.6	129* 1
Morpholine	Treatment of boiler water	Decomposed into hydro- gen, a nitrogen com- pound, various carbon compounds.	Negligible	7.5* ga
NaCH (50% by wt)	Regeneration of makeup demineralizer	Released to discharge	0.3 (Unit 1 0.2 (Units 2 and 3)	15249 11 20751 11
H2SO4(92% by wt)	Regeneration of makeup demineralizer	Released to discharge	1.0 (Unit 1) 0.3 (Units 2 and 3)	26419 11 20067 11
Turco 4324a	Decontamination	Released to discharge	0.01	16 1
Amwayb	Decontamination	Released to discharge	0.06	83 1
Turco 4305-D ^C	Decontamination	Released to discharge	0.003	10.0-1
Oakite Rustripper ^c	Decontamination	Released to discharge	0.04	1 2층 gal.
NadCl solution 15% (trade percent)	Biocide	Sodium hypochlorite is converted to sodium and chloride ions, a small	Unit 1 Na : 2.9 Cl : 4.5	15,000 gal
1,5,6 (crade percent)		amount forms chloramines. Released to discharge.	Units 2 Na : 2.1 and 3 Cl : 3.3	135,000 gal

CL77W or equivalent Scale prevention POOR ORIGINAL

Released to discharge

2.0

3,000 ga

TABLE 2.3-1 (Continued)

10

Composition of Tures 4324:

:

1714HC03		45-55%	
Na6P6018 Inorganic	corrosion	1%	
inhibite Non-ionic wetting	biodegradable	3-5 %	

^bComposition of Amway unknown (proprietary).

Composition of Oakite Rustripper:

English

Eline

NaOII	70-80%
Na2CO3 Carboxylic type	20-30%
sequestrants Amino-carboxylic type sequestrants	5%

*Boiler chemicals are used only when heating boiler is operating. Monthly usage quantities assume rull operation for an entire month.

- 2.4 Specification for Radioactive Materials Discharge for Units 2 and 3 is covered by "Appendix A" Section 3.8 and will be attached to this section at a later date.
- 2.5 Specification for Radioactive Materials Monitoring for Units 2 and 3 is covered by "Appendix A" Section 3.8 and will be attached to this section at a later date.

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3.0 ENVIRONMENTAL SURVEILLANCE

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3.1 Non-radiological Surveillance

3.1.1 Abiotic (N/A)

- 1. Chemical (N/A)
- 2. Bacteria (N/A)
- 3. Dissolved gases (N/A)
- 4. Thermal Measurements See 4.2
- 5. Erosion and Sedimentation (N/A)
- 6. Physical Parameters (Ancillary Measurements) (N/A)

Bases:

b. Terrestrial - (N/A)

3.1.2 Biotic

a. Aquatic

(1) Specific Ecological Survey

Objective: Document the impact of station operation on fish impingement, egg & larvae drift and fish populations during one year of closed cycle operation on the biotic communities of the Illinois River. Lake monitoring will be conducted to determine if biological nuisances develop as a result of closed cycle station operation.

b. Specification:

(1) Fish: Samples of fish will be collected in the river above, in and below the thermal discharge at the following locations:
1. River 1R, 2R, 3R, 6R, 8R, and 9R.
Samples will be collected in March, June, August and November using the following techniques and analytical procedures:

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Sampling techniques to be used during each sampling period will include electroshocking, gill netting and seining.

Stomach analysis will be conducted for representative fish of each species captured. Gill net & electroshocking results will be expressed as catch per unit effort. In addition fish will be identified to species, sexed, individual lengths and weight, and if possible, age will be determined.

When large numbers of species are collected sub-sampling will be conducted to determine individual length and weight.

Length frequency distribution will be determined for each type of sampling gear and sampling station for each season that sampling is conducted.

Condition factor will be calculated for each gear used, during each season and sampling station. Food habits will be determined for all sport fish, ictalurids and carp captured which were eviscerated for sex determinations. Comparisons of data collected will be conducted between various monitoring stations, individual seasons, and with data collected at similar sampling stations of past studies.

General Information:

Electroshocking will be conducted in the vicinity of sampling stations for half hour periods at each transect on each of four days. Each transect for electrofishing will extend 100 meters on . each side of the center of the respective sampling station at each depth (10 to 50 meters from shore).

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'Shoreline seining will be conducted at sampling stations on each of four consecutive days. The seine shall be ca. 50' long, ca. 12' deep and consist of experimental mesh. The amount of time and area sampled should remain as constant as possible.

2. Impingement of Fin Fish

To determine the number, size and weight of fish that are collected in trash baskets after being impinged on traveling screens of Units 1, 2 and 3.

Twice a week fish that accumulate in trash baskets are identified, counted, size range and total weight/species are obtained. In addition incidences of external parasites are documented.

Prior to the observation period, traveling screen will be manually operated to remove debris, and a clean trash basket is set into place. At the end of the 24 hr. period, the traveling screens will again be manually operated to remove all debris including impinged fish. Fish will be enumerated from this collection.

Non-Shad Species

For less than 30 of a single species in a collection period, each individual is weighed and measured. For numbers over 30 of a specific species, the fish are divided into three groups by length, weight. Ten are measured in each group. If one group has less "than ten in it, we weigh and measure more in another group, so that

- 14 -

the total measured is 30. The fish in each length group are counted. If there are external parasites the fish will be brought back to the laboratory and identified.

Shad

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When the sample is not particularly large, the sample is divided into five length groups: 1) 3", 2) 3-6", 3) 6-8", 4)8-10", and 5) 10".

For each group 10+ individuals are weighed to obtain an average weight and the number of individuals are counted. The weight and length of the longest and shortest fish is obtained. For very large samples, representative subsamples will be taken. The subsample is treated in the same manner as for the smaller sample. The fish collected will be expressed as numbers and weight of species/day and volume of circulating intake water.

The results will be tabulated and related to the number of days and hours that have transpired prior to removal of the trash baskets. This program will be conducted for a one year period.

If the numbers or type of fin fish is determined to be significant or have a potentially significant detrimental impact on the propagation of fin fish of recreational or commercial importance, the following steps will be taken:

1. The appropriate state and Federal recreational agencies having commercial responsibility for fisheries will be notified.

- 15 -

2. Plans for corrective action will be developed.

- 16 -

3. If the quantity of entrapped fin fish is unusually large the N.R.C. staff will be notified and immediate action will be initiated to reduce the entrapment rate pending a detailed review.

Immediate action will consist of reducing the circulating water intake volume, i.e. reducing power to reduce entrapment rates unless there is an emergency need for power.

3. Fish Egg and Larvae

The program is designed to evaluate the approximate numbers of fish eggs and larvae that are entrained in the cooling water intake system of Units 1, 2 and 3. Data will be collected at two ambient river transects upstream of the intake, in the Kankakee and Des Plaines Rivers, to contrast intake with river numbers.

Sampling will be conducted for one five month period or until fish eggs and larvae are not encountered during the sampling periods.

Replicate samples are collected at each sampling site, once a week during the study period, during a 24 hour period with a ca. O mesh $\frac{1}{2}$ meter plankton net. The volume of water passing through the net recorded with flow meter. Samples will be collected in the two intake canals at two depths at each sampling location. Samples will also be collected at each ambient location at three locations and two depths at the same interval and frequency.

- 1. Measure the extent of the thermal plume under extreme and average river flow conditions and reactor power conditions for Units 1, 2 and 3.
- 2. Determine compliance with State of Illinois Water Quality Thermal Regulations.
- 4.2 Nuisance Algal Blooms (See Section 3.1.2.4.)

:4.3 Use of Algicides

Objective: to determine how to apply algicides to prevent excessive build-up to the cooling lake if needed for the control of nuisance blooms of algal and subsequent depletion dissolved oxygen of the cooling lake blowdown for a period of one year from commencement of the Technical Specification.

Specification: Prior to April 1, 1977 algicides may be used to control algal bloom in Dresden Lake. Whenever algicides are utilized samples shall be taken prior to use and application in the cooling lake to determine the species and density of concern. The quantities of algicides used, the species of concern and the specific reason for application shall be included in the semi-annual operating reports. Those reports shall also contain a cumulative use table for all algicides used. During this period, algicides may not be used in any way to exceed the State of Illinois Water Quality Standards in the lake blowdown.

Prior to April 1, 1977, a report shall be submitted to the NRC which addresses the anticipated use of algicide, the long term build-up of algicide within the cooling lake sediment, alternative algicide and the concentrations required to control the species of concern and the general environmental effects of various algicide application.

The primary reason for using algicides will be to control nuisance algal blooms. Blue green algae if they are found in samples at concentrations greanter than 500 cells/L. See Section 4.2.

For each 24 hour period, 96 samples will be collected. Each sample will be enumerated for live and dead eggs and fish larvae will be identified to their lowest possible taxon.

4. Phytoplankton in Lake

Fourreplicate samples will be collected from 1 meter below the surface with a 4 liter kemmerer samples twice per month during March, May, June, July & August for a period of one year from commencement of the program to determine if nuisances algal Blooms occur in the cooling lake.

Samples will be collected at sampling locations 17L, 19L and 21L.

c. Terrestrial (N/A)

3.2 Radiological Environmental Monitoring - This section is discussed in Appendix A, Section 3.8. The section will be attached to this section in October, 1976.

4.0 SPECIAL SURVEILLANCE AND STUDY ACTIVITIES

4.1 Thermal Mapping

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Objective: to verify that the blowdown specified in Section 5.8 will comply with the State of Illinois Water Quality Thermal Regulations.

Specification: After commencement of closed cycle operation of the cooling lake, thermal mapping shall be conducted and submitted to the NRC. This program shall be designed to: 5.0 ADMINISTRATIVE CONTROLS (Discussed in Appendix A, Section 6)

5.1/2 Organization and Responsibility (See 5.0)

5.3 Audit and Review (See 5.0)

5.3.1 Offsite Review and Investigative Function and Audit Function (See 5.0)

5.3.1.a. Offsite Review and Investigative Function (See 5.0)

5.3.1.b. Offsite Audit Function (See 5.0)

5.3.1.c. Authority (See 5.0)

5.3.2 Onsite Review and Investigative Function and Audit Function (See 5.0)

5.3.2.a. Onsite Review and Investigative Function (See 5.0)

5.3.2.b. Onsite Audit Function (See 5.0)

5.3.2.c. Authority (See 5.0)

- 5.4 Actions to be taken if a Limiting Condition for Operation is Exceeded (See 5.0)
- 5.5 Procedures

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5.5.1 Procedures for Implementing Environmental Technical Specifications

The following written procedures will be prepared to ensure compliance with various activities involved in implementing the Environmental Technical Specifications.

a. Control of circulating water thermal effluent.

b. Operation of the chlorination system.

- c. Control of other chemical effluents.
- d. Release of radioactive effluents.

5.5.2 Operating Procedures

In addition to the procedures specified in Section 5.5.1, the plant operating procedures will be consistent with the limiting conditions of operation established in these Environmental Technical Specifications.

5.5.3 Review of Procedures

The review and approval system for other operating procedures is described in Appendix A Technical Specifications, Specification 6.2.E and F.

- 5.6 Plant Reporting Requirements
- 5.6.1 Routine Reports (Described in Appendix A Section 6.6.2)
 - (a) Radioactive Effluents (See Appendix A, Section 6.6.2, C.1.)
 - (b) Environmental Surveillance (See Appendix A, Section 6.6.2, C.2.)
 - (c) A report on the non-radiological environmental surveillance program will be submitted with 90 days after April 1 and October 1 of each year. The report shall be a summary and interpretation of the results of the environmental activities for the six month period, including a comparison with preoperational studies, and an assessment of the observed impacts of the plant operation on the environment.
 - 5.6.2 Non-Routine Reports (See Appendix A Section 3.8)
 - Radioactive Discharge (See 5.0) .a.
 - Radiological Environmental Monitoring (See 5.0) b.
 - Non-Radiological Environmental Monitoring c.

In the event a limiting condition for operation is exceeded, a report shall be made within 24 hours by telephone and telegraph or telecopy to the Regional Director of the office of inspection and enforcement, Region III, USNRC, followed by a written report within 14 days to the Regional Director of the office of inspection and enforcement, Region III, USNEC (carbon copy to the Director of Reactor Regulation, USNRC).

The written report to the extent possible shall: (a) describe, analyze and evaluate the occurrence, including extent and magnitude of the impact, (b) describe the cause of the occurrence and (c) indicate the corrective action (including any significant changes made in procedures) taken to preclude repetition of the occurrence and to prevent similar occurrences involving similar components or systems.

5.7 Records Retention (See 5.0)

5.8 Special Requirements

Any significant design modific tions or procedure changes that affect the specification in this section (5.8) shall be reported in accordance with 5.6.3.a.

Specifications

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5.8.1 Cooling System

- a. The maximum design water-intake velocity shall not exceed 0.6 foot per second at the bar racks and 1.85 feet per second at the traveling screens.
- b. Debris and fish washed from the traveling screens shall not be discharged into the receiving water.
- c. The cooling system shall be capable of operating in the closed cycle mode.
- d. The proposed discharge designs and supporting basis from model studies in progress will be submitted to the NRC for review and approval.

This shall include an evaluation of the environmental impact of the discharge system.

- e. Lake dredging shall not be removed from the perimeter of the lake.
- f. Maximum lake blowdown flow rate when closed cycle shall not exceed 500,000 gpm.

5.3.2 Use of Herbicides

The development of the new transmission rights-of-way connecting Dresden Units 2 and 3 with the CECo. bulk power supply system (total of about four miles) was

carried out under the direction of only qualified forestry personnel. The control of subsequent vegetative growth is done with only approved herbicides applied in accordance with applicable State and Federal law and by specialists licensed by the State of Illinois. Application of herbicides is spot basal treatment only where needed. Application of 2, 4, 5T and 2, 4D herbicides shall not be permitted in the vicinity of residences, food crops and water supplies.

5.8.3 Fog and Ice Control

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An electronic sensor is used to measure the record the horizontal visibility next to the County Line Road bed between the bridges over the cooling lake. The visibility detector automatically turns on two "Road Closed" signs (one north and one south of the bridges) whenever the visibility is low. For visibilities between 100 and 500 feet, two additional signs indicate "Fog Ahead - Reduce Speed to 20 mph". Fog fences have been installed along the road and high intensity strobe lights are placed along the center line of the road.

5.8.4 Dike Surveillance: to insure stability and integrity of the Dresden Lake dike, periodic inspections will be made.

> Specification: the inspection of dikes will be conducted once a month during April through October and once during the remaining 5 months. The procedure will be to visually inspect the exterior and interior dikes, for the following items:

- 1. Exterior Dikes (visual inspection to look for the following).
 - (a) Wet areas on the face of the dike.
 - (b) Wet areas in the immediate area of the base of the dike.
 - (c) Slumping or falling of dike composition material on the face of the dike.
 - (d) Cracks, open pit holes, slumping on the top of the dike.
 - (e) Condition of rip-rap material and material beneath rip-rap.

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- Interior Dikes (visual inspection to look for the 2. ollowing).
 - (a) Slumping or falling of dike composition material.
 - (b) Condition of rip-rap material and material beneath rip-rap.
 - (c) Cracks, open pit holes, slumping on the top of the dike.
- Flumes (visual inspection to look for the 3. following).
 - (a) Slumping or falling of dike composition material.
 - (b) Wet areas to either side of flumes.
 - (c) Cracks, open pit holes, slumping in the center flumes.
- General (visual inspection to look for the 4. following).
 - (a) Obstruction in the ditches and culverts on the exterior of dike.
 - (b) Debris on lake and flume surface.
 - (c) Damage to 'exterior fence.

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- (d) Blockage in culvert beneath intake and discharge canal.
- (e) Seepage in the area of the lift station and spillway.
- (f) Burrow holes or the burrowing of animals into either the dikes or the immediate area of the dikes.
- (g) Dumping of miscellaneous material on any Commonwealth Edison property.

The results of this inspection and any corrective action shall be summarized in the semiannual report.

Basis: This procedure will provide for inspections sufficient to detect any condition which may be deleterious to dike integrity.

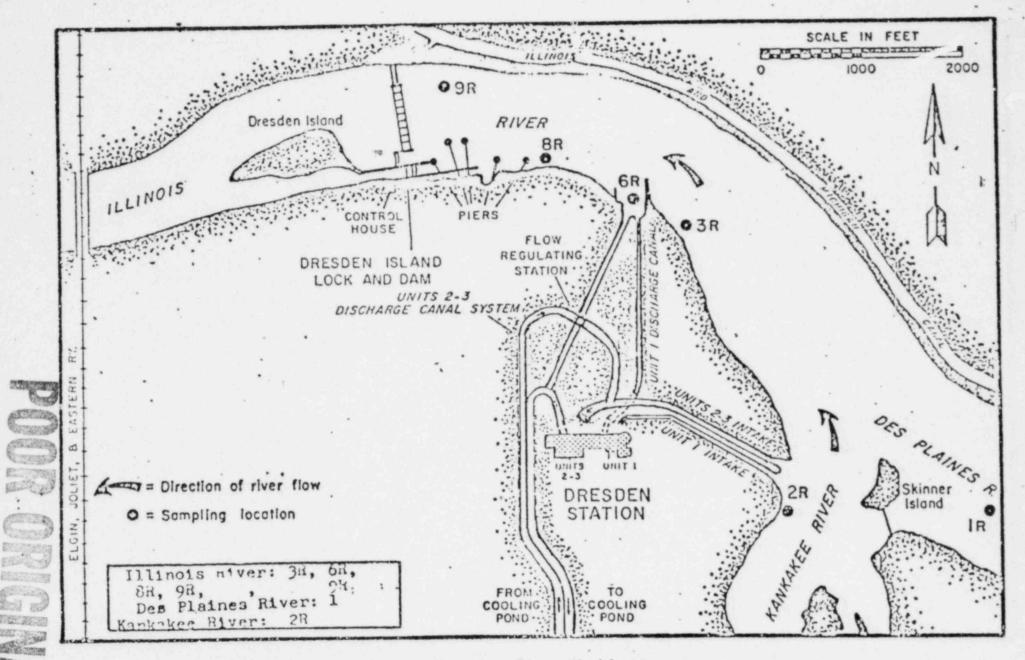


Figure 3.1-1 Dresden River Monitoring Sampling Stations

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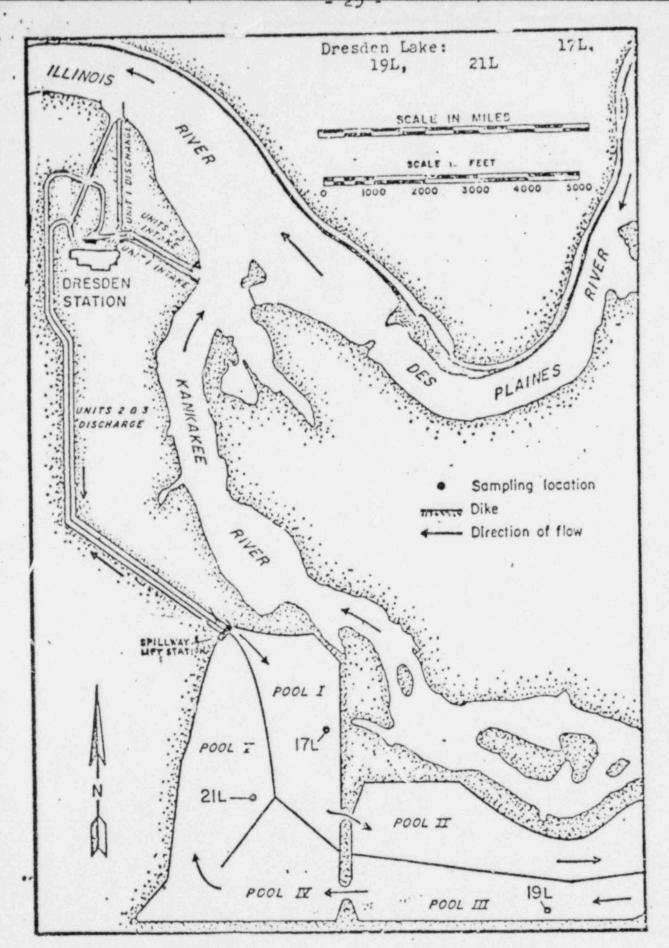


Figure 3.1-2 Dresden Lake and Canal Monitoring Stations



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NRC PDR	HEINEMAN	1		TEDESCO BENAROYA	
NRC POR I & E (2) OELD	HEINEMAN	I IR		TEDESCO BENAROYA LAINAS	ENVIRO ANALYSIS DENTON & MULLER
NRC POR I & E (Z) OELD GOSSICK & STAFF	HEINEMAN SCHROEDE	R R RING		TEDESCO BENAROYA LAINAS IPPOLITO	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH.
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC	HEINEMAN SCHROEDE ENGINEER	R R RING		TEDESCO BENAROYA LAINAS	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST
NRC POR I & E (Z) OELD GOSSICK & STAFF	HEINEMAN SCHROEDE ENGINEER MACCARRY	R R RING Z		TEDESCO BENAROYA LAINAS IPPOLITO	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL	R R RING Z		TEDESCO BENAROYA LAINAS IPPOLITO KIRKVOOD OPERATING REACTORS	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH ERNST EALLARD SPANGLER
NRC POR I & E (2) OELD GOSSICK & STAFF MIPC CASE HAMAUER	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI			TEDESCO BENAROYA LAINAS IPPOLITO KIRKVOOD OPERATING REACTORS	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI C REACTOR ROSS			TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS ' STELLO	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH.
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC CASE MANAUER HARLESS PROJECT MANAGEMENT	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI C REACTOR ROSS NOVAK	I R R R R R R R R R R R R R R R R R R R		TEDESCO BENAROYA LAINAS IPPOLITO KIRKJOOD OPERATING REACTORS ' STELLO ' OPERATING TECH.	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD SPANGLER SITE TECH. GAMMILL
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI C REACTOR ROSS NOVAK ROSZTOCZ	I R R R R R R R R R R R R R R R R R R R		TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING REACTORS ' STELLO ' OPERATING TECH. EISENHUT	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD SPANGLER SITE TECH. GAMMILL STEPP
NRC POR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI C REACTOR ROSS NOVAK	I R R R R R R R R R R R R R R R R R R R		TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING REACTORS' STELLO OPERATING TECH. EISENHUT SHAO	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD SPANGLER SITE TECH. GAMMILL STEPP
NRC POR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI REACTOR ROSS NOVAK ROSZTOCZ CHECK	I R R R R R R R R R R R R R R R R R R R		TEDESCO BENAROYA LAINAS IPPOLITO KIRKWOOD OPERATING ŘEACTORS STELLO OPERATING TECH. EISENHUT SHAO BAER	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN
NRC POR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI REACTOR ROSS NOVAK ROSZTOCZ CHECK AT & I	A CR CING C SAFETY CY		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS STELLO OPERATING TECH. EISENHUT SHAO BAER F TLER	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS
NRC POR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI REACTOR ROSS NOVAK ROSZTOCZ CHECK AT & I SALTZMAN	A CR CING C SAFETY CY		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS STELLO OPERATING TECH. EISENHUT SHAO BAER F TLER	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS VOLLMER
NRC POR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ INFLIEMES	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI ROSS NOVAK ROSS NOVAK ROSZTOCZ CHECK AT & I SALTZMAN RUTBERG	A ING CING SAFETY SAFETY		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS STELLO OPERATING TECH. EISENHUT SHAO BAER F TLER	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS VOLLMER BUNCH
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ INSLIEMES	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI ROSS NOVAK ROSS NOVAK ROSZTOCZ CHECK AT & I SALTZMAN RUTBERG	I R R R R R R R R R R R R R R R R R R R		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS STELLO OPERATING TECH. EISENHUT SHAO BAER F TLER	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS VOLLMER BUNCH J. COLLINS
NRC POR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ NELTEMES SKOVHOLT	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI REACTOR ROSS NOVAK ROSZTOCZ CHECK AT & I SALTZMAN RUTBERG EXTERNAL	I R RING SAFETY SAFETY Y I DISTRIBUTION		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS STELLO OPERATING TECH. EISENHUT SHAO BAER F TLER	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUES HANAUES HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ NELTEMES	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI REACTOR ROSS NOVAK ROSS NOVAK ROSZTOCZ CHECK AT & I SALTZMAN RUTBERG EXTERNAL NAT LAB: REG. VIE	I R RING SAFETY SAFETY Y I DISTRIBUTION		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS ' STELLO OPERATING TECH. EISENHUT SHAO BAER P TLER GRIMES	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER
NRC FOR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES SKOVHOLT LPDR: Morriss, Inc.	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI ROSS NOVAK ROSS NOVAK ROSZTOCZ CHECK AT & I SALTZMAN RUTBERG EXTERNAL MAT LAB: REG. VIE	I DISTRIBUTION		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS ' STELLO ' OPERATING TECH. EISENHUT SHAO BAER P TLER GRIMES BROOKHAVEN NAT LAB	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST EALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER CONTROL NUMBER
NRC PDR I & E (2) OELD GOSSICK & STAFF MIPC CASE HANAUER HARLESS PROJECT MANAGEMENT BOYD P. COLLINS HOUSTON PETERSON MELTZ HELTEMES SKOVHOLT LPDR: MOUNTSS, I.	HEINEMAN SCHROEDE ENGINEER MACCARRY KNIGHT SIHWEIL PAWLICKI REACTOR ROSS NOVAK ROSZTOCZ CHECK AT & I SALTZMAN RUTBERG EXTERNAL Z NAT LAB: REG. VIE LA PDR	A DISTRIBUTION		TEDESCO BENAROYA LAINAS IPPOLITO KIRKNOOD OPERATING REACTORS ' STELLO ' OPERATING TECH. EISENHUT SHAO BAER P TLER GRIMES BROOKHAVEN NAT LAB	ENVIRO ANALYSIS DENTON & MULLER ENVIRO TECH. ERNST BALLARD SPANGLER SITE TECH. GAMMILL STEPP HULMAN SITE ANALYSIS VOLLMER BUNCH J. COLLINS KREGER